

PUBLIC SAFETY DEPARTMENT[661]

Adopted and Filed

Pursuant to the authority of Iowa Code section 103.6, the Electrical Examining Board hereby amends Chapter 501, “Electrician and Electrical Contractor Licensing Program—Administrative Procedures,” Chapter 502, “Electrician and Electrical Contractor Licensing Program—Licensing Requirements, Procedures, and Fees,” Chapter 505, “Electrician and Electrical Contractor Licensing Program—Education,” and Chapter 550, “Electrical Inspection Program—Organization and Administration,” Iowa Administrative Code.

Iowa Code chapter 103 establishes the Iowa Electrician and Electrical Contractor Licensing Program and creates the Electrical Examining Board with authority to adopt rules that establish standards for the safety of electrical work and that govern all aspects of the licensing of electricians and electrical contractors and of the electrical inspection program.

Notice of Intended Action was published in the July 8, 2015, Iowa Administrative Bulletin as **ARC 2057C**. A public hearing was held on August 20, 2015, at 10 a.m. in Room 125 of the Oran Pape State Office Building. There were no public comments made, nor were any written comments submitted on or before that date. These amendments are identical to those published under Notice.

The Electrical Examining Board adopted these amendments on October 15, 2015.

Amendments to Chapters 501 and 502

The amendments to Chapters 501 and 502 establish procedures for the issuance of licenses to master electricians licensed in states which have entered into reciprocal licensing agreements with the Board, establish procedures for the refunding of licensing fees, and correct, through the rescission of subrule 501.5(2), the mailing address of the Board for submitting requests for waivers of administrative rules to the Board.

Amendments to Chapter 505

The amendments to Chapter 505 update rules regarding postsecondary education requirements, clarify requirements for qualification for a journeyman license, and set requirements for qualification for a residential electrician license.

The postsecondary electrical education program established by the Board is designed to provide quality educational opportunities and on-the-job experience for persons with an interest in and an aptitude for electrical work. The structure of the Iowa statute allows the Board to provide three alternative methods for persons to qualify for licensing: (1) a certified apprenticeship program; (2) documented on-the-job training; and (3) postsecondary educational programs. These alternatives accommodate the needs of a variety of persons. Certified apprenticeship programs are not always available to every interested person in Iowa, and for some individuals, a community college-based educational program is the most accessible and affordable alternative. The Board has worked with Iowa community colleges to develop successful programs that combine academic and practical training for persons who seek journeyman electrician training. The community colleges now have the capacity to provide similar programs for residential electricians.

Having these community college-based programs for both journeyman and residential electrician training helps to keep Iowa competitive with other states offering similar programs and facilitates opportunities for stable, well-paid jobs for properly trained electricians.

Amendments to Chapter 550

The amendments to Chapter 550 update rules regarding the organization’s reporting structure and the electrical inspection programs operated by political subdivisions to clarify requirements for certification of electrical inspectors.

The organization of the State Fire Marshal’s office has changed since the rules in Chapter 550 were initially implemented, and the amendments to rules 661—550.1(103) and 661—550.3(103) reflect a more streamlined organization within the State Fire Marshal’s office.

The certification standards for political subdivisions established by the Board are designed to implement specific guidance on the type of certification required to comply with Iowa Code section 103.24(1)“b.” The amendments to rule 661—550.4(103) provide uniformity throughout the state regarding electrical inspections, while providing cities and counties the flexibility allowed by law.

Within the electrical trade, there are two primary sources for certification of residential and commercial electrical inspectors: the International Association of Electrical Inspectors and the International Code Council. The standards for both associations are similar, and both inspector certification programs are designed to ensure that inspectors are properly trained to identify deficiencies that may affect public safety and welfare.

Iowa Code chapter 103 provides for the gradual implementation of licensing and certification requirements, including requirements for political subdivisions to comply with statewide standards for certification of inspectors as of January 1, 2014. The amendments to rule 661—550.4(103) implement uniform standards across the state for all electrical inspectors, as provided in Iowa Code sections 103.24 and 103.29.

Before initiating the amendments to rule 661—550.4(103), the Board surveyed municipalities in Iowa to determine how many currently engage in inspections, how many have certified inspectors, and how many planned to continue their own inspection programs after January 1, 2014. Of the 49 municipalities that reported that they currently provide their own electrical inspections, about half already certify their inspectors, and nearly every municipality had plans to require certification or were exploring how to obtain certification for their electrical inspectors.

Although state inspectors are required to obtain certification to conduct both residential and master (or residential and commercial) inspections, rule 661—550.4(103) as amended herein would allow a city or county to limit its inspectors’ duties. Thus, if a local inspector’s duties are limited to only residential inspections or only commercial inspections, it is necessary for the local inspector to obtain certification for only those limited duties. This approach provides flexibility to the city or county and its employees, while also protecting public safety.

Any fiscal impact is expected to be minimal and less than \$100,000 annually or \$500,000 during the next five years.

Rules of the Electrical Examining Board are subject to the waiver provisions of rule 661—501.5(103). The Board does not have authority to waive requirements established by statute.

Electrical demands continue to increase as advances in technology require more electrical wiring, and more complex electrical wiring, to meet changing needs. Proper electrical wiring is essential to public safety, as well as resource efficiency. The Bureau of Labor Statistics estimated a 23 percent growth rate for electricians between 2010 and 2020, faster than the national average for all occupations. Additionally, the occupational employment statistics (OES) wage survey shows that Iowa electricians have an average annual income of \$46,980, which is higher than the average for all occupations. National statistics provide similar conclusions about electricians across the United States. Proper educational preparation allows graduates the opportunity to obtain jobs that pay well and helps to improve public safety.

A strong economy that results in increased construction means an increased demand for qualified electrical contractors and electricians, from Iowa and from other states, and also increases the demand for certified electrical inspectors who can ensure the safety of Iowans.

United States Census data show that Iowa suffered less and has recovered faster than its neighboring states during the latest recessionary period. Similarly, Associated General Contractors of America data also show that Iowa’s economic recovery has occurred faster than the national average. In fact, construction employment in Iowa rose 7 percent from 2008 to 2012, in comparison to the national average of just 1.3 percent, and Iowa ranked fourth out of 51 jurisdictions in its construction employment numbers. Given Iowa’s economic edge in recovering from the recessionary period in 2008 to 2010, it is not surprising that measures of both residential and nonresidential construction are stronger in Iowa in comparison to its neighbors.

In addition, this rule making provides for uniform inspection standards throughout the state. New construction and improvements in existing infrastructure may place increased demands on local resources. Providing uniform standards for electrical inspection translates into uniform business

expectations for the construction industry, the insurance industry, and the utilities that provide power to all Iowa communities. Certified inspectors can increase public safety and reduce costs associated with dangerous electrical wiring.

Finally, the recent initiatives to attract returning veterans to Iowa may mean that more veterans will be eligible for jobs as electricians in Iowa if they receive appropriate training or if reciprocity agreements are in place. Some veterans may have educational benefits that could be used for postsecondary education to become licensed electricians. These veterans could benefit from the increasing number of such programs in Iowa, and the state can benefit from the experience of veterans who choose to live and work in Iowa. In addition, the amendments may mean that more veterans will be eligible for jobs as certified electrical inspectors in Iowa municipalities. Recently adopted rules better accommodate the training and experience of veterans who conducted electrical work during their military service. The military training and experience may allow veterans to work as inspectors in Iowa's municipalities.

In summary, after analysis and review of this rule making, a positive impact on jobs is anticipated. This rule making lessens the burden for electricians to enter into Iowa's market. Further, this rule making should allow Iowans to obtain business in other markets. The Board will continue to work with stakeholders to maximize this rule making's positive impact on jobs.

These amendments are intended to implement Iowa Code sections 103.6, 103.12, 103.12A, 103.21, 103.24 and 103.29.

These amendments will become effective December 30, 2015.

The following amendments are adopted.

ITEM 1. Rescind and reserve subrule **501.5(2)**.

ITEM 2. Amend subrule 502.2(14), introductory paragraph, as follows:

502.2(14) Reciprocal journeyman licensing. A journeyman class A license may be issued, without examination, to a person who holds a license from another state provided that:

ITEM 3. Adopt the following **new** subrule 502.2(15):

502.2(15) Reciprocal master licensing. A master class A license may be issued, without examination, to a person who holds an equivalent license from another state provided that:

a. The board has entered into an agreement with the other state providing for reciprocal issuance of licenses and that the agreement recognizes the equivalency of the examination required for the license issued by the other state and the examination required for the Iowa license to be issued; and

b. The applicant has successfully completed a supervised written examination approved by the other state, with a score of 75 or higher, in order to obtain the license from the other state; and

c. The applicant holds an applicable license from the other state at the time the application for an Iowa license is filed and has held the applicable license from the other state continuously for one year at the time the application for an Iowa license is filed; and

d. The applicant has submitted:

(1) A completed application for the Iowa license;

(2) A copy of the applicable license from the other state, clearly showing the license number and any other identifying information;

(3) The applicable fee;

(4) Any other information required by the board, which may include, but is not limited to, additional evidence that the person's license from the other state is currently valid; and

e. The applicant has either:

(1) Completed an approved apprenticeship program; or

(2) Completed 16,000 hours of electrical work as an electrician licensed by the other state, documented by a sworn affidavit signed by the applicant.

ITEM 4. Adopt the following **new** subrule 502.3(6):

502.3(6) Refunds of license fees shall be made under the following circumstances:

a. If an error on the part of the staff or the applicant or licensee has resulted in an overpayment of fees, the refund shall be in the amount of overpayment and shall be made if the overpayment is discovered

by staff of the board or if the overpayment is discovered by the applicant or licensee and the applicant or licensee requests a refund.

b. If an applicant for an initial license or a renewal license dies prior to the effective date of a license for which the applicant has applied and paid the applicable fee, the license fee shall be refunded to the estate of the applicant upon receipt of a request from the estate of the applicant, accompanied by a certified copy of the death certificate.

ITEM 5. Amend rule 661—505.101(103) as follows:

661—505.101(103) Program approval.

~~505.101(1) Any~~ Pursuant to Iowa Code sections 103.12 and 103.12A, an educational institution that plans to offer a postsecondary electrical education program to prepare students to be licensed by the board shall seek approval for the program before students participate in the program. Separate approval is required for a journeyman electrician program and for a residential electrician program.

~~505.101(2) The educational institution shall submit an application to the board office on a form specified by the board. Only applications from institutions which are~~ An educational institution that submits an application must provide certification that the institution is currently accredited by a recognized regional or national educational accrediting organization ~~organizations shall be approved organization.~~

~~505.101(2) For any postsecondary electrical education program for which approval is sought on or after September 1, 2011, approval by the board shall be obtained prior to student participation in the postsecondary electrical education program.~~

~~505.101(3) An educational institution seeking initial approval of a journeyman electrician program or a residential electrician program must submit an application for initial approval of a postsecondary electrical education program shall be submitted to the board not less than 120~~ at least 60 days prior to student participation in the program.

~~505.101(4) Approval of a postsecondary electrical education program is normally for five years, although approval may be withdrawn for cause prior to the expiration of the five-year period. The board shall set times for periodic review of approved programs and shall develop policies that address the following:~~

a. Requirements for the submission of applications.

b. Standards required for program approval.

c. Standards for withdrawal of approval or discontinuation of an approved program.

d. Standards for educational content and class attendance, qualifications for instructors, documentation and reporting required to establish compliance with program requirements, and specification of degrees or diplomas awarded.

~~505.101(5) Applications for renewal of approval of postsecondary electrical education programs shall be submitted to the board at least 120 days prior to the expiration of the five-year approval period.~~

~~505.101(6)~~ 505.101(5) Information regarding approved postsecondary electrical education programs may be obtained by contacting the board office. A list of approved postsecondary electrical education programs and other information about postsecondary electrical education programs shall be posted on the board's Web site.

ITEM 6. Amend rule 661—505.102(103) as follows:

661—505.102(103) Standards for postsecondary electrical education programs. ~~A postsecondary electrical education program shall not be approved unless it meets all of the following requirements: Policies developed by the board shall meet the following minimum standards:~~

~~505.102(1) The~~ A postsecondary electrical education program shall include coverage of subject matter areas listed in the document "Required Subjects for Postsecondary Electrical Education Programs," approved and published by the board and available on request from the board office and from the board Web site. ~~Included in addition to~~ Every approved postsecondary electrical education program must include the technical electrical subjects ~~shall be set out in the policy, which must include~~

at least 4 hours of instruction on the Iowa electrical statute, Iowa Code chapter 103, with a minimum of 1 hour on Iowa electrical licensing requirements.

~~505.102(2) Completion of the course of study shall require a minimum of 2,000 contact hours between the student and instructors, of which a minimum of 1,600 hours shall cover technical electrical subjects. Between 30 and 40 percent of the 2,000 hours shall be lecture hours, and the balance shall be laboratory or shop hours. Approved postsecondary electrical education programs must include a minimum number of contact hours, as specified in the policy adopted by the board. Each approved program must establish attendance policies that are specified in the policy adopted by the board. Each approved program must include 30 to 40 percent of contact hours that involve lecture, and the remaining hours must be laboratory or shop hours. In addition to completing the contact hours, each student must complete the specified number of hours of on-the-job training before the student is permitted to take the licensing examination.~~

~~505.102(3) The program shall have an attendance policy which requires that a student attend at least 95 percent of each required program course to receive credit for the course. A postsecondary electrical education program for a journeyman electrician license shall include at least 2000 hours of instruction, and the student must complete at least 6000 hours of on-the-job training before the student can become eligible to take the journeyman electrician examination. A postsecondary electrical education program for a residential electrician license shall include at least 1000 hours of instruction, and the student must complete at least 4000 hours of on-the-job training before the student can become eligible to take the residential electrician examination.~~

~~505.102(4) Each instructor shall possess one of the following qualifications: The board shall establish in its policy the minimum qualifications for instructors in a postsecondary electrical education program, which shall include:~~

~~a. Hold a current license as a class A master electrician or class A journeyman electrician issued by the board; or Current licensing as an electrician, as set out in the board's policy; and~~

~~b. Hold a bachelor of science degree or equivalent or higher degree in electrical engineering and have completed 4,000 hours of experience performing electrical work; or Compliance with standards set by the Iowa department of education for an instructor at a community college.~~

~~c. Hold an associate of applied science or equivalent or higher degree in electrical construction or maintenance or both and have completed 8,000 hours of experience performing electrical work.~~

~~505.102(5) For each course limited to a specialized technical or general education area, the instructor shall possess evidence of related specialized technical knowledge, including completion of training, certification, or accreditation in the specialized subject matter.~~

ITEM 7. Amend rule 661—550.1(103) as follows:

661—550.1(103) Electrical inspection program. The electrical inspection program is created as a section within the building code bureau in the fire marshal division of the department of public safety. The program is under the general supervision of the state fire marshal and the direct supervision of the building code commissioner, and shall be headed by a chief electrical inspector. The program shall enforce requirements for electrical installations adopted by the electrical examining board in 661—Chapter 504.

ITEM 8. Amend rule 661—550.3(103) as follows:

661—550.3(103) Organization. The electrical inspection section shall be headed by a chief electrical inspector. Reporting directly to the chief electrical inspector shall be electrical inspector supervisors, each of whom shall head a unit which shall include a number of electrical inspectors assigned by the building code commissioner and the chief electrical inspector. Each unit supervisor may designate electrical inspectors as lead workers with the approval of the chief electrical inspector and consistent with any applicable rules of the department of administrative services.

ITEM 9. Amend rule 661—550.4(103) as follows:

661—550.4(103) Qualifications of inspectors.

550.4(1) State inspectors. Electrical inspectors, electrical inspector supervisors, and the chief electrical inspector shall be certified as commercial and residential electrical inspectors no later than one year after starting employment in any of these positions.

a. Certification as inspector. Certification shall be obtained from the International Association of Electrical Inspectors, ~~P.O. Box 830848, Richardson, TX 75080-0848,~~ as both a certified electrical inspector—residential and as a certified electrical inspector—master; or from the International Code Council, ~~5203 Leesburg Pike, Suite 600, Falls Church, VA 22041,~~ as both a residential electrical inspector and a commercial electrical inspector.

b. Other job requirements. Each of the persons employed in these classifications shall also meet any requirements established by the department of administrative services, human resource enterprise, for the job classification in which the person is employed.

550.4(2) Political subdivision inspectors. A political subdivision that chooses to perform its own inspections on or after January 1, 2014, must require certification of its inspectors as provided in Iowa Code section 103.29.

a. Certification as inspector. A person who is employed or appointed as an electrical inspector for a political subdivision on or before January 1, 2014, must obtain certification on or before January 1, 2015. A person employed or appointed as an electrical inspector after January 1, 2014, must obtain certification within one year of the appointment date. The board may take action to enforce statutory compliance by the individual or by the political subdivision if a person employed or appointed as an inspector fails to obtain certification within one year of employment or appointment or fails to maintain the required certification while employed as an inspector.

b. Certification requirements. Certification of electrical inspectors for political subdivisions shall be obtained from the International Association of Electrical Inspectors as a certified electrical inspector—residential or as a certified electrical inspector—master or both or from the International Code Council as a residential electrical inspector or a commercial electrical inspector or both.

c. Inspections. A political subdivision has the authority to limit an inspector's duties to only residential inspections or only commercial inspections, so long as the inspector assigned to those duties obtains and maintains the proper certification to conduct the inspections assigned.

d. Other job requirements. The political subdivision may impose other job requirements consistent with the law and the needs of that political subdivision.

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EDITOR'S NOTE: For replacement pages for IAC, see IAC Supplement 11/25/15.